# METHOD AND APPARATUS FOR PREDICTING WHETHER A SPECIFIED EVENT WILL OCCUR AFTER A SPECIFIED TRIGGER EVENT HAS OCCURRED


## Abstract

In many situations it is required to predict if and/or when an event will occur after a trigger. For example, businesses such as banks would like to predict if and when their customers are likely to leave after a particular event such as closing a loan. The business is then able to take action to prevent loss of customers. Customer data including data about customer who have closed a loan and then left a bank for example, is used to create a Bayesian statistical model. A plurality of attributes are available for each customer and the model involves partitioning these attributes into a plurality of partitions. In one embodiment the Bayesian statistical model is a survival analysis type model and in another embodiment the model comprises fitting a Weibull distribution to the data in each of the partitions. The marginal likelihood of the data is calculated and then the method involves mixing over all possible partitions in a Bayesian framework. Alternatively an optimal set of partitions which best predicts the data is chosen.